REPORT OF THE EVALUATION SURVEY OF THE DOULOS COMMUNITY PROGRAM IN NOUAKCHOTT, MAURITANIA

BY

Dr. THIERNO OUSMANE COULIBALY; MD/MPH
Epidémiologist / Health Programs and Services Administrator.
National Coordinator of the R.D.H.S.A. Training Program- D.P.S./ M.O.H.S.A.

AND

Mr. **CHOUEIBOU CORRERA**
Statistics Works Assistant
D.P.S. / M.O.H.S.A.

MAY 1995

THE
DOULOS
COMMUNITY

"...But emptied Himself, taking the character of a servant." Phil. 2:7

Nouakchott, July 3, 1995

Darell McIntyre
BHR/FFP/DP
Room 319, SA-8
Agency for International Development
Washington, D.C. 20523-

Dear Darell,

Enclosed you will find the report containing the results of the external impact evaluation of Doulos Community's Title II MCH Program in Mauritania. The evaluation was performed by a team of Mauritanians from the Ministry of Health, led by Thierno Coulibaly, who in addition to being an M.D., also has a Master's degree in Public Health from Tulane. Dr. Coulibaly has performed similar program evaluations for the World Health Organization and a number of other NGOs. The initial report was written in French and submitted at the end of May. We received the final copy of the English text on June 24.

We are quite satisfied with the results of the evaluation as they demonstrate that the mothers in our centers have made definite gains in terms of improvement in basic health knowledge and practices. The control group used in this study, comprised of mothers with children enrolled in Ministry of Health rehabilitation centers or those bringing their child to a clinic for a medical consultation, was carefully selected and probably a much closer match to the women in Doulos' centers than the control group which Doulos used in our own KAP survey.

In addition to evaluating the mothers' knowledge and practices, the health knowledge of the Mauritanian workers who implement the program at the Doulos MCH centers was evaluated. Certain recommendations were made as to subjects that should be reviewed in upcoming training seminars, but overall the evaluation concluded that Doulos' training program for the center workers is effective and successful. We held our most recent quarterly training seminar for our Mauritanian workers just last week and were able to incorporate several of the subjects recommended for review into the program.

We trust that AID will find the evaluation to be useful as you continue to assess the effectiveness and impact of Doulos' program. We would be glad to discuss the results or answer any questions you may have about the findings or methodology of the study.

Thank you for your continued support for our program.

Sincerely,

Karen P. Boyle

Karen Boyle
Director of Health and Nutrition Education

5 Route 33 • Freehold, NJ 07728 • USA
Tel: 908-577-9150

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ABREVIATIONS

A.I.D.S.	Acquired Immuno-Deficiency Syndrom
A.R.I.	Acute Respiratory Infections
B.F.	Breast-Feeding
D.C.	Doulos Centers
D.P.	Doulos Program
E.P.I.	Enlarged Program on Immunization
G1.	Women Group # 1: Doulos Centers Women
G2.	Women Group # 2: Non D.C. Women
HC/MCH.	Health Center/Maternal and Child Health
K.A.P.	Knowledge, Attitudes, and Practices
M.O.H.S.A.	Ministry of Health and Social Affairs
M.R.C.	Mauritanian Red Crescent
Nber.	Number of
N.G.O.	Non Government Organization
O.R.S.	Oral Rehydration Solution
R.D.H.S.A.	Regional Direction (Director) of Health and Social Action
S.S.W.	Sugar + Salt + Water Solution (ORS home made solution)
U.M.	Ouguiya (Mauritanian Currency) (1 US $ = 128 UM)
W/A. (Percent of W/A).	Anthropometric Index Weight by Age

INTRODUCTION

After the first period of drought in the eighties, the Islamic Republic of Mauritania made an appeal to the International Community to help them combat the threat of famine. Several governmental and non governmental organizations responded to this appeal. One donor, Catholic Relief Services, began an emergency feeding program which then evolved into an ongoing Maternal and Child Feeding and Health Education program. In 1987, Doulos Community took over the Nouakchott Maternal and Child Health centers formerly run by Catholic Relief Services.

Almost 8 years after beginning their work in Mauritania, which is centered particularly in the poorest areas of Nouakchott, Doulos Community sought an external evaluation of the impact of their program. The administrative staff asked us to conduct this evaluation study.

Before examining the evaluation results, we'll briefly analyze the Doulos Program, then talk about our work methodology, the results we got, followed by some comments.

I. DOULOS PROGRAM IN MAURITANIA

Doulos Community runs a nutritional program to reach the poorest populations. They are involved in 3 activities, a Maternal and Child Health project, a Food for Work project and a Direct Feeding project. The principle project is the Nouakchott Maternal and Child Health project, on which this evaluation focuses.

This Maternal and Child Health program has as its objectives:
1. to improve the health and nutritional status of preschool children enrolled in the program;
2. to enhance mothers' knowledge, attitudes and practices of primary health and basic hygiene concepts;
3. to enhance local volunteers' knowledge of primary health care concepts, and to train them to teach these concepts;
4. efficient food distribution to targeted beneficiaries.

The program activities are carried out in 6 MCH centers ("Doulos Mother and Child Health Centers"). The program activities are summarized as: food distribution to beneficiaries; health education sessions, by means of talks addressed to mothers of children enrolled in the program; growth monitoring of enrolled children; and a culinary demonstration. The children are enrolled on the basis of the child's nutritional status (moderate and severely malnourished children are eligible) using the anthropometric index "Percent of Standard Weight for Age". They are enrolled between 4 and 30 months of age and remain in the program until the age of 58 months. The children come with their mothers once a month to the centers where they are weighed, and their nutritional status is plotted on their personal growth chart. After the weighing process, the mothers are advised on their child's nutritional status. A meal is prepared as a culinary demonstration and distributed to the children. Following that, a talk is given by local volunteers, on various topics such as hygiene, new-born and child feeding practices, child health and safety. Subjects related to the mother's health are also discussed. At the end of the visit, the beneficiaries receive a dry ration for a month, made up of 8.3 Kg of Soy-Fortified Sorghum Grits, 6 Kg of WSB and 2 liters of Vegetable oil.

The training of local volunteers in Primary Health Care takes place through a series of seminars that include all Primary Health Care points. Their level of knowledge is assessed by practical exercises during supervisions and written tests during workshops and training seminars.

In addition to the MCH project described above, the other components of the Doulos program, are, firstly, food distribution to local volunteers and workers in a "Food For Work" program, and secondly, assistance to other NGOs by means of food aid for their direct feeding programs.

Doulos Community, although carrying out basic health activities, unfortunately has no work-relationship with the Ministry of Health and Social Affairs. No protocol has been signed with the health department. Their only partner is the Mauritanian Red Crescent, through its nutritional assistance program to the poorest populations. This lack of relationship is regrettable since Doulos has activities which resemble those carried out in government health centers, with only slight differences (food distribution). Furthermore, it contributes to the Ministry of Health's lack of knowledge about the nutritional status of children in Nouakchott, even though Doulos sends occasional reports to the Ministry (annual reports and/or KAP survey reports).

II. METHODOLOGY

II.1. Objectives :

This evaluation process has as its main objectives:

a. to determine the level of comprehension and application of basic health concepts by beneficiary mothers of the program;

b. to assess the level of knowledge of volunteers of basic health care concepts and their ability to transmit this knowledge;

c. to assess the level of satisfaction which workers get from the "Food For Work" program.

II.2. Study Population:

The study was carried out on a population composed of Mother/Child pairs enrolled in the Doulos Maternal and Child Health centers. In order to permit a comparison of Doulos Program mothers' knowledge with those who are not enrolled in the Doulos program, the study included Mother/Child pairs enrolled in programs of the Ministry of Health and Social Affairs. These were the Maternal and Child Health Centers of the Regional Direction of Health and Social Actions (R.D.H.S.A.) in Nouakchott, and the medical center of "Terre Des Hommes" (a Swiss NGO). In addition to Mother/Child pairs, local volunteers and other workers in Doulos centers were tested and questioned.[1]

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[1]Throughout, the term "volunteer" refers to the 14 trained health educators who give the nutritional counseling and health talks at the centers. These were tested to assess their basic health knowledge. The term "workers" refers to the 15 manual workers who assist at the centers, particularly in the food distribution. These personnel were questioned in relation to the Food for Work program. All center personnel are in fact volunteers of the Mauritanian Red Crescent Society and all receive Food for Work.

II.3. **Sampling**

The study involved 4 different samples:

- A sample of 100 Mother/Children pairs enrolled in the Doulos program

- A sample of 100 Mother/Children pairs not enrolled in Doulos program, but enrolled in the programs of Maternal and Child Health Centers of the RDHSA of Nouakchott (MOHSA).

- A sample of 14 Doulos Program volunteers.

- A sample of 15 Doulos Program workers.

A total of 200 mothers were surveyed and 200 children from 0 to 59 months had their nutritional status assessed from information collected in their health file or recorded on their growth chart. Fourteen (14) volunteers completed a written test and 15 workers responded to a survey related to the FFW program.

II.4. **Data Collection** :

Three methods were used to collect data. Besides interviews with technical staff and their local partner, a questionnaire addressed to mothers was used. In each Doulos Center, 20 mothers were surveyed from the questionnaire; in the R.D.H.S.A. centers, 40 mothers in two centers (20 per center) and 60 others in two centers (30 per center) were also surveyed. The idea was to compare each Doulos Mother/Child pair with a non Doulos Mother/Child pair, controlled on the child's age and the location of the center. Some difficulties (see below) did not allow us to make such a direct comparison.

The volunteers were given a test composed of questions which were taken from former tests they had completed during workshops from 1992 to 1995. The workers responded to 5 questions related to the monthly FFW ration they receive.

II.5. Data Analysis :

Data from the questionnaire was analyzed using EPI-INFO Software. The volunteers' test was corrected on the basis of a correction grid given by Doulos management staff. The total number of points one could get was 100; this was to facilitate interpretation of the results. Analysis of FFW-related survey of workers was done manually; it was an assessment of information given by the respondents.

II.6. Problems and Difficulties Encountered:

During this study, problems and difficulties were found in 5 areas:

1. **Timeframe and study period problems**:

The deadline was short (1 month) and it coincided with the Muslim Feast of "Tabaski". The data collection period was cut in two (3 days before the feast and 4 days after, with 3 days of no work).

Solution: After the holiday, we used several data collectors in order to meet the deadline.

2. **Logistical problems**:

The lack of transportation initially slowed down the data collection process, due to the inability to be on time at the site. Teams were unable to reach the centers before 10.0 AM, meaning that they missed most of the first session at the Doulos centers, which starts at 8.30 AM and finishes at 11.0 AM.

Solution: We borrowed vehicles from the M.O.H.S.A. (services), paying for the gasoline, and we also rented taxis. The late arrival at centers obliged the teams to detain the mothers and children from 2.0 PM to 2.30 PM, thereby disturbing center activities.

3. **Sampling problems** :

The sample was obtained without difficulty from the Doulos centers, but it was often impossible to obtain a complete sample of Mother/Child pairs from the Nutritional Rehabilitation and Education Centers (R.D.H.S.A.) which most closely correspond to the Doulos program.

Solution: To obtain the required sample of Mother/Child pairs, we sent our surveyors to question mothers who had brought their infants to the non Doulos Centers for a medical consultation.

4. **Data Collection problems**:

* Problems related to lack of information on children seen in non Doulos centers, particularly those at the infant consultation (the exact age and weight were rarely recorded in their health file).

*** Solution:** In certain cases, the age was estimated; if it was not known, the weight was often ignored. Sometimes a weight was taken from a former health visit.

** Problems related to translation of questions in national languages. Very often, technical words (French ones) do not have equivalent in national languages (Arabic/Hassania, and Pular), making the interrogation more complicated.

**** Solution:** - Teams were composed of people who spoke different languages;

- Adoption of terms used by those speaking the same language with mutual help from each other.

5. **Data Analysis problems**:

The lack of information, mainly from non Doulos Mother/Child pairs sometimes made the interpretation of results difficult.

Solution: Information judged not very useful, not having much bearing on the results or lacking in most of the records was ignored in the analysis.

III. THE SURVEY RESULTS

III.1. MOTHERS SURVEY

III.1.A. ROUGH RESULTS

III.1.A.1. SOME CHARACTERISTICS OF THE CHILD POPULATION :

III.1.A.1.1. CHILDREN'S AGE :

Although the children from both groups of the sample were from the same age group (0 - 59 months), those from the Doulos Centers tended to be older; 99 % of them were more than 24 months old, whereas 89 % of those from non Doulos centers were less than 36 months old.

Table A.1 : Distribution of children by age group

Age group (months)	D C Children	RDHSA children
<12	0	24
12-23	1	47
24-35	27	18
36-47	41	6
48-48	31	5
Total	100	100

III.1.A.1.2. **Sex of Children**:

The distribution of children by sex is almost the same in both groups.

Table A.2 : Distribution of children by Sex

Sex	D C Children	RDHSA Children
F	44	45
M	56	55
Total	100	100

III.1.A.1.3. **Age of Children at Doulos Program Enrollment**:

Only children enrolled in Doulos Program are taken into account in the following.

Table A.3 : Age of Children at Enrollment

Age group (months)	Frequency
<12	38
12-23	58
24-35	4
36-47	0
48-59	0
Total	100

The Doulos Program enrolls children from 4 months. The average enrollment age was 12 months. 96 % of children are enrolled before 24 months.

III.1.A.1.4. **Nutritional Status of children at Enrollment**:

Nutritional status is assessed through the anthropometric index Weight/Age (W/A). It's represented here by the percentage of W/A. 71% of children at their enrollment on to the program had a W/A less than 70% with some severe cases of malnutrition (< 60% W/A). The average is 65% of W/A. This shows that children are often enrolled in the program with severe malnutrition.

III.1.A.1.5. **Nutritional status of children at the survey time**:

Overall, a small improvement in the nutritional status was found. At the time of the survey, only 19% of the children had a W/A less than 70%, 75% of the children had a W/A between 70 and 85%, and only 6% had a W/A of greater than 85%.

III.1.A.1.6. **Length of child enrollment in the Doulos Program** :

The children, once they are enrolled (whatever their age), stay in the program until they reach 58 months of age, when they graduate, regardless of their nutritional status.

More than a half of children (55%) stay between 24 and 35 months with an average of 29 months; the maximum is 38 months and minimum 8 months.

Table A.4 : Length of stay in the Doulos Program

Length of stay (months)	**Frequency**
< 12	1
12 - 23	29
24 - 35	55
36 +	15
Total	100

III.1.A.1.7. **Analysis of some Variables** :

This analysis was carried out to determine the relationship between certain variables.

a. Relationship between the W/A percent (Nutritional status) of children at the survey time and their age:

The study found that there is no relation between these two variables ($p < 0.3$). In addition, 94% of children have less than 85% of W/A. Their nutritional status is distributed in the same way across all ages.

b. Relation between the W/A percent and the age at enrollment :

At the survey time, there was no relationship between these variables ($p < 0.4$).

c. Relation between the W/A percent difference (nutritional status change from the enrollment date to the survey date) and the length of enrollment in the program:

In this case, the length of enrollment in the program has no influence on the child's nutritional progress ($p < 0.5$).

III.1.A.2. **Demographic and Socio-economic data**

The demographic data was used to compare both groups of women.

III.1.A.2.1. **Mothers' Age**

Table A.5 : Distribution of mothers by age (in years)

Age group (years)	D C Women	RDHSA Women
< 20	2	8
20 - 29	17	51
30 - 39	53	32
40 and +	28	9
Total	100	100

The mothers enrolled at Doulos centers seem to be older than those of R.D.H.S.A. centers. Only 19% are less than 30 years old (vs 59%).

III.1.A.2.2. **Total number of births**:

Table A.6: Distribution of women by the total number of children (dead and living)

Total no. children	D C Women	RDHSA Women
< 5	24	57
5 - 9	71	40
10 and +	5	3
Total	100	100

Women, in general, have less than 10 children; the average is 5 children.

III.1.A.2.3. Number of living children

Table A-7: Distribution of women by the number of living children

No. of living children	D C Women	RDHSA Women
< 5	35	69
5 - 9	63	31
10 +	2	0
Total	100	100

The average number of living children is about 4 in both groups.

III.1.A.2.4. **Amount spent daily on food**

Table A-8: Distribution of women by the amount spent daily on food

Amount of Daily expenses (U.M)	D C Women	RDHSA Women	Total
< 500	16	32	48
500 - 1000	69	58	127
1000 and more	15	8	23
Total	100	98	198

63% of families spend between 500 and 1,000 UM daily on meals. The average expenditure is 700 UM, the minimum expenditure is 200 UM and the maximum is 1,700 UM. This demonstrates that even if families are poor, they spend a significant proportion of their money on food.

The analysis shows that expenditure is greater for those with large families. ($p < 0.002$).

III.1.A.2.5. **Housing Conditions**

III.1.A.2.5.a. **Basic Household Infrastructure**

Table A-9 : Basic infrastructure present in the home

Basic infrastructure	**D C Women**	**RDHSA Women**	**Total**
Electricity	8	15	23
Running Water	4	8	12
Latrines /WC	71	52	123

D.C. mothers' households seem to have less basic infrastructure, except for latrines, than the others.

III.1.A.2.5.b. **Disposal of used water and household waste**

Table A-10 : Used water and waste disposal

Disposal	D C mothers		RDHSA mothers	
	used water	waste	used water	waste
Throw out in the courtyard	2	0	1	7
In the street	52	21	70	48
In a hole	46	28	29	21
Burn	0	4	0	11
Other	0	47	0	13
Total	100	100	100	100

The table shows that in both groups of women the disposal methods of waste and used water are roughly the same. They are normally thrown away in the street or in a hole, or kept in bags or some other container, then transported on donkey carts to dumping areas.

Just under 80% of women from both groups have never attended school and most of the remaining 20% have not exceeded the primary level.

III.1.B. MOTHERS' KNOWLEDGE, ATTITUDES AND PRACTICES

In this study, the mothers' K.A.P. of child growth monitoring, care/protection, nutrition/feeding, breast-feeding and illnesses related to diarrhoea were analyzed.

In addition to the raw data on the K.A.P., an analysis of some variables related to D.C. activities was done.

III.1.B.1. DOULOS CENTER ACTIVITIES

These are: child growth monitoring, health lessons taught through short talks and monthly ration distributions.

III.1.B.1.1. Growth Surveillance/Monitoring

III.1.B.1.1.a. Child Weight Change

Almost all women (99%) know how to determine their child's weight change from the growth chart. They can tell if the weight has increased, decreased or is stable, compared to the previous month's weight.

Table: B.1 : Knowledge of the child's weight change

Weight change	**Frequency (%)**
Weight increased	58
Weight decreased	26
Weight did not change	15
Don't know	01
Total	100

III.1.B.1.1.b. Explanation of the different parts of the growth chart.

92% of women know the meaning of the two parts of the card.

a) The Yellow part : the child's weight is low or has decreased; "the child is sick; in a bad way";

b) The Green Part : the child's weight is high, it has increased; "the child is healthy".

71% of mothers think the weight of their child is good.

III.1.B.1.2. **Health Lessons Taught**

Many teaching sessions have been given in the 5 Doulos Centers, on various themes.

The following table gives the frequency with which some of the teaching themes were remembered by mothers.

Table B.2 : Recall of teaching themes: Number of times these themes were cited by mothers

Themes	Frequency %
Hygiene	59
Eating 5 times	37
Fever	31
Vitamin A	21
Breast-feeding	20
Microbes	45
Diarrhoea	45
Preparation of WSB	14
Pregnant woman	12
Yellow card	9

Themes	Frequency%
Vaccination	57
Family planing	9
Food introduction	47
Uses of Water	24
Dehydration/ORS	47
Good meal	17
A.I.D.S.	3
Child Safety	11
A.R.I.	12

The seven themes that are most frequently remembered by women are: Hygiene (59%), Immunization (57%), Food Introduction and Dehydration/ORS (47%), Microbes and Diarrhoea (45%) and Eating Five times (37%).

There was no analysis of the women's ability to cite several themes at once, but it was noticed that many women could not cite more than 5 themes at once.

The recall of the previous month's teaching theme (measles) was somewhat varied, with 51% of mothers remembering the theme, and 18% of mothers who did not remember any theme or were absent.

III.1.B.1.3. **Distribution, Intake and ration duration**

The women's knowledge of the monthly ration size was not taken into account, because the majority of beneficiaries said the same thing.

The use of rations was studied by looking at the length of time the rations lasted and the number of people eating them, particularly children less than 5 years old.

Table B.3 : Duration of commodities:

Duration of commodity (in days)	C O M M O D I T Y		
	Sorghum	Veg. Oil	WSB
< 08	69	91	42
08 - 14	24	08	44
15 and more	07	01	14
Total	100	100	100

In almost all cases, the duration does not exceed 15 days. The minimum is 1 day, the maximum is 30 days for the WSB, 20 days for others. The average duration is 4 days for vegetable oil, 6 days for sorghum and 9 days for the WSB.

III.1.B.2. **BREAST- FEEDING AND NUTRITION**

The knowledge acquisition in the area of nutrition and breast-feeding was studied in two ways: Firstly, a comparison was done between the 2 groups of women. Secondly, a study was done on the internal relation of certain variables.

III.1.B.2.a. **Comparison of women's knowledge**

III.1.B.2.a.1. Number of children aged five years or less:

Table B-4 : Distribution of women by the number of under five years olds

No. of (< 5 year) Ch	D C Women	RDHSA Women
1 Child	36	48
2 Children	49	41
3 Children	10	10
4 Children and more	5	1
Total	100	100

87% of women have between one and two children under 5 years old.

III.1.B.2.a.2. Breast-Feeding Practice

a. Mothers breast-feeding their youngest child at survey time:

In both groups, less than a half of the mothers were still breast-feeding their youngest child; 36% of D.C. mothers and 47% of others.

b. Time when breast feeding was started.

Table B-5 : When breast feeding was started

Time Period of B.F.	D C Women	RDHSA Women
Immediately (<1 Hour)	36	13
From 1-24 Hours	46	41
2nd day	9	28
3rd day	6	14
More than 03 days	3	3
Never	0	1
Total	100	100

The table shows that the majority of mothers give the breast for the first time shortly after giving birth. However, D.C. mothers seem to do it earlier; 39% of them start breast-feeding in the first hour, as recommended, vs. 13% of other mothers.

c. Reasons for ceasing to breast-feed:

The main reason is age. The mothers consider their child to be grown up, making it unnecessary to continue to breast-feed (more than 50% in both groups).

d. Child's age when breast-feeding is stopped:

d.1. Mothers who no longer breast-feed their youngest child.

Table B-6 : Distribution of women by the age of the youngest child when breast-feeding was stopped

Age at B.F. cessation (months)	D C Women n = 65	RDHSA women n = 49
< 7	2	0
7 - 12	6	33
13 - 18	23	29
19 - more	68	39
Total	100	100

The table shows that D.C. mothers have tendency to stop breast-feeding their child later (68 % after 18 months, with a average of 20 months vs 39 % of other mothers.) Note: It is recommended that mothers breast-feed their child for 24 months.

d.2. Mothers who still breast-feed their youngest child and have another under five years old :

Table B-7 : Distribution of women by the age at which they weaned their next to last child (Brother or sister of the child still being breast-fed)

Age at B.F. cessation (months)	D. C. Women n = 35	RDHSA Women n = 41
< 7	0	2
7 - 12	14	15
13 - 18	32	27
19 - more	54	56
Total	100	100

In this case, both groups of women have the same attitude. A little more than the half stopped giving the breast after 18 months.

e) Child's age at the beginning of weaning (beginning of food introduction while still breast-feeding)

Table B-8 : Distribution of women by the age of food introduction

Age at weaning (months)	D C Women (%)	RDHSA Women (%)
< 4 months	21	43
4 - 6 months	73	42
7 months and more	6	15
Total	100	100

RDHSA centers mothers have a greater tendency to start the weaning process too early (43% before the age of 3 months vs 21%) or too late (15% vs 6%). D.C. mothers have better knowledge and

practices in regard to weaning. 73% of them start giving solids between 4 and 6 months (the recommended age), vs 42% of the other mothers.

III.1.B.2.a.3. Child feeding practices:

a) Bottle feeding is very rare (6 % and 8 % of all cases, respectively in the 2 groups).

b. The first food items given to the child are varied, but the main ones are sorghum or rice porridge, followed by rice and potatoes. Vegetables are in 4th position.

Table B-9 : Main food items given to the child at first
(Number of times these items are cited)

Foods	D C Women (%)	RDHSA Women (%)
Porridge	50	32
Rice	16	26
Potatoes	16	12
Vegetables	11	6

In this table, we see a difference between both groups of women. DC mothers give more porridge and vegetables than the others.

b) Weaning food items are given differently by the mothers of the two groups. In general, DC mothers have a tendency to give a wider variety of weaning foods. There are only three food items that D.C. mothers do not favor (bread, family meal and milk).

Table B-10 : Frequency of weaning food use

Food items used	D C Women	RDHSA Women
Cerelac porridge	35	24
Couscous	17	11
Vegetables	75	45
Sugar water	23	5
Bread	29	43
Family meal	53	67
Rice Porridge	48	37
Egg	32	10
Milk	41	61
Tea	1	5

d) In almost all cases, 3 daily meals are eaten by the families (92% vs 90% respectively).

e) The number of times a day that a child needs to eat is better known by DC mothers.

A child has to eat 5 times a day; this response has been given by 62 % of DC mothers vs only 16 % of other mothers.

Table B-11 : Distribution of women according to the number of times a child needs to eat a day

No. of times a child needs to eat a day	D C Women (%)	RDHSA Women (%)
One Time	1	2
2 Times	4	12
3 Times	13	49
4 Times	18	21
5 Times	62	16
Don't know	2	0
Total	100	100

III.1.B.2.a.4. Food Groups:

a) The knowledge of food groups that a person (particularly a child) should eat daily is different in each group of women.

Table B-12 : Distribution of women by the number of food groups correctly cited

No. of food group items	D C Women	RDHSA Women
No group	43	94
One group	0	0
2 groups	11	0
3 groups	46	6
Total	100	100

RDHSA centers mothers have less knowledge of the basic food groups, which are:

* Construction or Red group (protein-rich foods);
* Protection or Green group (vitamin-rich foods);
* Energy or Yellow group (carbohydrate-rich foods).

b) Food rich in Vitamin A:

60% of DC mothers could cite at least one item of food rich in Vitamin A, vs only 21% in the other group.

Table B-13 : Distribution of Women by the number of food items rich in Vitamin A cited

No. of food items rich in Vit. A	D C Women	RDHSA Women
No food item	40	79
One food item	26	6
2 food items	21	9
3 food items	12	3
4 food items	1	3
Total	100	100

c) Food contributing to body construction

72% of DC mothers could cite at least one food item from the red/construction group vs 39% of RDHSA center mothers.

Table B-14 : Distribution of women by the number of food items known from the construction group

No. of food items cited	D C Women	RDHSA Women
No food item	28	61
One food item	16	11
2 food items	16	17
3 food items	26	9
4 food items	12	2
5 food items	2	0
Total	100	100

d) Food contributing to body protection:

57% of DC mothers Vs 22% from the second group could cite at least one food item from the green/protection group.

Table B-15 : Distribution of women by the number of food items from the protection group cited

No. of food items cited	D C Women	RDHSA Women
No food item	43	78
One food item	18	11
2 food items	21	8
3 food items	8	2
4 food items	4	1
5 food items	6	0
Total	100	100

e) Food providing energy to the body:

43 % Vs 16 % respectively in the two groups could cite at least one food item from the yellow/energy group.

Table B-16 : Distribution of women by the number of food items from the energy group cited

No. of food items cited	D C Women	RDHSA Women
No food item	57	84
One food item	22	10
2 food items	8	6
3 food items	9	0
4 food items	3	0
5 food items	1	0
Total	100	100

III.1.B.2.a.5. Food Intake

Table B-17 : Distribution of women by the frequency of consumption of certain foods.

Food	How often eaten							
	Every Day		Time to Time		Rarely		Never	
	G1	G2	**G1**	G2	**G1**	G2	**G1**	G2
Fish	**57**	38	**40**	49	**3**	10	**0**	3
Meat	**44**	53	**51**	44	**5**	2	**0**	1
Milk	**77**	71	**20**	28	**3**	1	**0**	0
Vegetables at dry season	**53**	55	**38**	38	**8**	4	**1**	3
Vegetables at cold season	**83**	72	**16**	26	**1**	0	**0**	2
Fruits at dry season	**4**	3	**49**	30	**39**	43	**8**	24
Fruits at cold season	**4**	3	**49**	32	**40**	40	**7**	25
Egg	**12**	3	**54**	28	**27**	36	**7**	33
Bread	**91**	91	**8**	6	**0**	2	**1**	1

DC women eat more fish, milk, vegetables and eggs. Fruits are eaten infrequently, while vegetables are consumed more in the cold season.

III.1.B.2.a.6. Food intake of pregnant women :

Of the DC mothers, 49% think that the food intake of a pregnant woman should be less than that of a non-pregnant woman, vs 60% from the other group.

Table B-18 : Distribution of women by their ideas on the eating habits of a pregnant woman.

Ideas	D C Women	RDHSA Women
Woman eats as usual	22	23
Woman eats more	23	15
Woman eats less	49	60
Don't know	6	2
Total	100	100

III.1.B.2.b. Study of some variables in DC mothers group.

This study is about the DC women's knowledge, in relation to the duration of the Mother/Child pair's enrollment in the program. The aspects that are studied in relation to the duration of enrollment in the Doulos program are:

a) The ability to know the Food groups: The difference is hardly significant ($p < 0.08$). The mothers tend to know more about the three groups of food a person should eat on a daily basis, the longer that they stay in the program.

b) The ability to cite foods rich in Vitamin A: The length of stay in the program has no influence ($p < 0.7$).

c) The ability to cite foods contributing to body construction and protection and foods providing energy: in both cases, the duration of stay has no influence on their knowledge, ($p < 0.6$; $p < 0.7$; and $p < 0.9$ respectively for construction, protection and energy group).

d) Child's age when weaning is begun, and when breast-feeding stops: these two variables have not been influenced by the length of stay in the program, ($p < 0.1$ and $p < 0.7$).

e) When mothers give the breast after birth: This is not influenced by the length of stay. 82 % of mothers start breast-feeding their babies in the 24 first hours.

III.1.B.3. **CHILD CARE AND PROTECTION**

III.1.B.3.a. **Comparison of two mothers groups** :

III.1.B.3.a.1. Initial course of action when a child is ill:

Table B-19 : Distribution of women by the first course of action when a child is ill.

Action	**D C Women**	**RDHSA Women**
Do nothing	0	2
Go to HC /MCH	58	67
Give medicines	36	16
Trad med/ Healer	4	12
Other	2	3
Total	100	100

DC mothers have less tendency to go to health centers/Maternal and Child Health centers (58% VS 67%); but a higher tendency to practice home treatment. Mothers from the other group have more tendency to go to see the traditional healer.

III.1.B.3.a.2. Preventative methods used by mothers in order to protect their children from diseases :

Table B-20 : Frequency of preventative action taken by mothers to protect their children from illness

Mothers' practices	**D C Women**	**RDHSA Women**
Do nothing	1	5
Breast-Feed child	9	6
Practice good hygiene	83	71
Vaccinate children	49	14
Ensure a good food intake	62	47
Wash with water + soap	74	50
Don't know	2	4

Best practices are found amongst DC mothers.

III.1.B.3.a.3. Knowledge of Immunization:

Table B-21 : Frequency of targeted diseases of the E.P.I. cited by mothers

Targeted Diseases	**D C Women**	**RDHSA Women**
Tuberculosis	75	36
Diphtheria	51	15
Tetanus	71	33
Whooping Cough	79	52
Poliomyelitis	75	58
Measles	97	80

We note that DC mothers have the best knowledge on child immunization [targeted diseases of the E.P.I. in Mauritania and the number of times a child should be vaccinated in his first year (5 times)].

84 % of mothers enrolled in the Doulos program vs 76 % from others know that the child should be vaccinated 5 times.

III.1.B.3.b. Analysis of the child treatment practices in relation to the length of stay in the program.

This analysis does not allow us to say that there is an connection between the duration of stay in the program and the knowledge and practices of the women in case of illness in the child ($p < 0.8$). 94 % of women adopt the same practices (going to Maternal and Child Health centers or home treatment) regardless of duration of their stay in the program.

III.1.B.4. **DIARRHOEAL DISEASES**

III.1.B.4.a. **Comparison of the two groups of mothers**.

III.1.B.4.a.1. Diarrhoeal Definition:

The exact definition we have adopted is: "The child passes more than three (3) liquid stools daily".

60 % of DC mothers could give the exact response, vs only 44 % from the second group.

III.1.B.4.a.2. Children who had diarrhea at least once in the last 15 days:

Table B-22 : Distribution of women by the number of children who had diarrhea

No. of children	D C Women	RDHSA Women
0 child	64	39
1 child	32	54
2 children	3	6
3 children	1	1
Total	100	100

Children of DC mothers had fewer attacks of diarrhoea than those of other mothers.

III.1.B.4.a.3. Conduct in case of diarrhoea in children

Table B-23 : Distribution of women by the first thing to do in the case of diarrhoea in a child

Conduct	D C Women	RDHSA Women
Do nothing	2	0
Go to HC/MCH	11	31
Give lots of water	1	8
Give Rice Porridge	19	20
Give SSW solution	64	31
See Marabout/healer	1	3
Don't know	2	7
Total	100	100

The best practice is to give the "home made solution" (Sugar, Salt and Water) before doing anything else; this method is often used by DC mothers (64% vs 31%).

III.1.B.4.a.4. Preparation and use of the SSW solution

The knowledge of the exact quantities of ingredients that make the solution (sugar: ½ tea glass or 8 cubes; + salt: 2 to 3 pinches; + water: 1 liter) seems to be best amongst DC mothers; 79 % gave correct responses, vs, 48 % in the second group of women. Of the 36 and 61 mothers in each group who stated that one of their children had diarrhoea during the last 15 days, 31 and 45 (that is 86 % and 74 %) had prepared and used the solution.

Table B-24 : Distribution of women who had prepared and used the SSW solution by the number of times they used it

No. of times the solution was used	D C Women (n= 31)	RDHSA Women (n = 45)
Once	6	29
Twice	52	33
3 Times	29	16
4 Times	13	4
5 Times and more	0	18
Total	100	100

2 to 3 times was the average number of times the solution (SSW) was used during the previous 15 days.

III.1.B.4.b. **Analysis of some variables** :

Variables that were studied in this section are: Diarrhoea definition, practice in the case of diarrhoeal onset, preparation of the SSW solution, in relation to the length of enrollment in the Doulos program.

The duration of enrollment in the Doulos program has no influence on the variables cited above; for diarrhoea definition: $p < 0.9$; practice: $p < 0.6$ and solution preparation: $p < 0.1$.

III.2. RESULTS OF MRC/DOULOS VOLUNTEERS TEST

The test was comprised of 25 questions that were all related to primary health care, which they been taught by the technical staff of the Doulos program. Courses take place every 3 months for 2 to 3 days.

The overall results are as follows:

* 12 volunteers out of 14 responded to the test questions.[2] The responses are assessed by the percentage of correct responses.

Table C.1: Percentage of points obtained by volunteers

% of Points	Frequency	%
53 - 60	3	25
61 - 70	4	33
71 - 80	5	42
Total	12	100

This table shows the high level of the volunteers knowledge (75% have more than 60% of correct responses). The lowest score is 53/100 points and the highest is 79/100 points; the average is 66/100 points. We might have hoped for better scores, but considering the educational level of the volunteers (often very limited, not exceeding the end of primary school), scores are impressive.

When analyzing the scores of each question, using the criterion: "more than 60% of total points" (60/100) as a satisfactory score, we get the following:

[2]The remaining 2 volunteers were on leave.

Theme N° 1: Nutrition / Child and mother Feeding practice: 5 questions (1, 6, 11, 16, 22). Two questions had low scores; question n° 22 had 4/12 volunteers who got more than 60 % of total points.

Theme N°2: Immunization: 2 questions (2, 25). One question (n° 2) had a score of 1/12 volunteers who got more than 60% of the total points.

Theme N° 3: Water / Hygiene / Sanitation: 2 questions (3, 17). Scores are high with 12/12 agents who get more than 60% of the total points.

Theme N° 4: Recruitment of children in the program: 1 question (4). 5/12 agents register more than 60% of total points.

Theme N° 5: Breast-Feeding practice: 4 questions (5, 18, 19, 20). Scores were low for all questions; question 5: 5/12 got more than 60% of total points; question 18: 4/12, and question 19: 5/12, whereas the score on question 20 is not taken into consideration, because the same number of points was given to all participants.

Theme N° 6: Child Health and Care: 3 questions (7, 12, 21). Scores were very good with :
- question 07: 12/12 agents who got more than 60% of total points;
- question 12: 11/12 agents who got more than 60% of total points;
- question 21: 12/12 agents who got more than 60% of total points.

Theme N° 7: Monitoring of child growth: 8 questions (8, 9, 10, 13, 14, 15, 23, 24). Questions 9, 10, 14, and 23 register high scores with 9/12, 12/12, 10/12, and 7/12 volunteers who get more than 60% of the total points. For other questions, scores are low; question 8 : 5/12, questions 15 and 24 had respective scores of 2/12 and 3/12 of volunteers who get more than 50 % of total points.

This analysis permits us to make this remark; even if the scores obtained by participants are generally speaking good, with 75 % of cases who get more than 60 % of total points, some themes

should probably be revised during the next training sessions. The main themes to be revised are the following:

* Nutrition : Food groups; Vitamins
* Immunization of pregnant women;
* Breast-feeding practice: The importance of Colostrum and Exclusive breast-feeding;
* Child growth: causes of growth problems, signs of growth problems.

III.3. SURVEY OF "FOOD FOR WORK PROGRAM" BENEFICIARIES (Doulos Program "Workers")

15 people were surveyed using the following questions:

- QUESTION N° 1: Is the amount of food you get to pay for your services satisfactory?
- QUESTION N° 2: Would you prefer to be paid in cash rather than in food ?
- QUESTION N° 3: How many people from your family benefit from this food?
- QUESTION N° 4: What are the amounts of food you get monthly
- QUESTION N° 5: How long does this food last in your home?
- SUBSIDIARY QUESTION : What do you think about Doulos Centers activities?

The results are as follows:

a) 100 % of respondents affirm they are satisfied with the amount of food they receive. Nonetheless; some stated that they used to get more when Catholic Relief Services was running the program.

b) In general, 80 % of them do not have any preference for cash instead of food pay. They all stated that if they got cash, they would have to buy food anyway. What they receive contributes to nutritional status of their family.

c) Despite the satisfaction expressed by beneficiaries, one could think that the food received is insufficient in relation to the household size.

Table D.1 : Distribution of workers according to the size of the household

Household size	Frequency	%
< 9	4	26,7
9 - 17	9	60,0
18 and more	2	13,3
Total	15	100,0

The minimum number of people living in a household is 5; The average is 12, and the maximum number is 22.

The table shows, as in many cases in Mauritania, that families are very large, with more than 70 % of cases having more than 9 people.

d) The amounts of food rations received are the same for all workers. The monthly ration is:

- Soy fortified sorghum: 3 bags of 25 Kg each;
- Vegetable Oil: 1 can of 4 liters;
- WSB: 12 Kg.

e) The duration of the food

Table D.2. Distribution of beneficiaries by the duration of commodities.

Duration (days)	Sorghum (%) n = 15	Veg. Oil(%) n = 15	WSB(%) n = 15
1 - 7	00	73	40
8 - 14	07	27	40
15 - 21	53	00	20
22 and more	40	00	00
Total	100	100	100

This table shows that none of these products lasts more than 3 weeks. This explains why the ration does not replace the main family staple (usually rice), but is nevertheless a valuable supplement.

We should think that the larger the family, the shorter the duration of the rations, but the analysis of the responses does not permit us to draw this conclusion; in all cases, there is no link between the size of the household and the duration of the ration ($p < 0.6$).

f) The opinion is the same for all respondents; the activities of Doulos centers are very well appreciated. They provide a service which is of very high moral and nutritional value to beneficiary populations. Many of them hope the program will be maintained for as long as possible, recruit more people and increase the food ration.

DISCUSSION - COMMENTS

On the basis of these results obtained in this study, one positive conclusion can be stated: "The Doulos program has had a positive impact on the health and nutritional status of populations who benefit from it". Comparing data from mothers who attend Doulos centers with those of mothers served by the R.D.H.S.A. of Nouakchott, the difference is remarkable. In almost all variables studied in this evaluation, mothers who enroll with their children in the Doulos program seem to have more knowledge and better attitudes.

1. In the matter of breast-feeding and child nutrition: the early start of breast-feeding is more prevalent amongst mothers in the first group (D.C. mothers), with 36 % vs 13 %. Also, more Doulos mothers breast-feed, and stop breast-feeding later. (68 % stop breast-feeding after 18 months, vs 39 % from the other group). The weaning process seems to be better mastered by the Doulos mothers; 73 % start feeding their children with solid foods in addition to their breast milk at the age of 4 to 6 months as recommended, vs only 42 % in the second group. The weaning foods are also better known and used by Doulos mothers. The number of daily meals for the child is also better known by mothers whose children are enrolled in Doulos centers. The food groups to be consumed daily are barely known by mothers who do not attend the Doulos centers.

2. In child care and protection, practices and attitudes are best in Doulos centers mothers. Whether it's the practice in the case of child illness or for child immunization, women who do not attend Doulos centers are limited in their knowledge.

3. There is also a clear difference in the practices and attitudes of women of the 2 groups in the area of diarrhoea definition and treatment.

4. The level of knowledge of the Mauritanian Red Crescent volunteers in matters of basic health care is very impressive. In regard to the instruction level of these volunteers, who often have

problems expressing themselves in french (the training is, in most cases, in french) and the results of the test, we can highly congratulate the Doulos training program. From the scores of each question of the test, we remark nevertheless, that there are some themes that need to be revised during the next training sessions.

5. The few questions asked to workers of Doulos centers show the satisfaction of beneficiaries with the "Food For Work program". Although in some cases, when making a comparison between the present program of Doulos Community and the former Catholic Relief Services program, the workers think that they benefit less from the DC (ration size, work clothes and other advantages), they all would prefer to continue in the program whatever the circumstances.

CONCLUSION

After 8 years of activity in Mauritania, the Doulos Community (which inherited the C.R.S. program), has acquired some fame amongst its beneficiaries. Not only does the program try to improve the nutritional status of those people, especially children, by food distribution, but it also runs health education programs for mothers and children and training courses for M.R.C. volunteers who are in charge of the centers.

The methodology adopted to conduct this study was not without some difficulties, but the results, in general, were in favor of the Doulos program. Whether it is nutrition/breast-feeding, child care and protection, or diarrhoeal diseases control, the results are of a high standard. The training of the personnel allows the enhancement and maintenance of the program. The Food For Work feature benefits the employees.

The only regrettable thing concerning the Doulos program is the absence of direct collaboration with the Ministry of Health and Social Affairs. It is to be hoped that, after this evaluation study, a collaboration will begin between these two parties to benefit the poorest people of the city of Nouakchott.

ANNEXES

EVALUATION DES ACTIVITES DE LA COMMUNAUTE DOULOS

QUESTIONNAIRE FICHE D'ENQUETE CAP MERES DES ENFANTS

48

FICHE : /_____/_____/_____/ Centre de :_____

I Enregistrement/Identification de l'enfant :
(Vérifier la carte de l'enfant pour prendre ces informations)

1º Nom et prénom de l'enfant _____Nº de la carte /_____/

2º Date de naissance (âge en mois) /____/____/____/

3º Sexe = M ou F

4º Rang dans la fratrie /____/____/

5º Date d'inscription /_____/_____/____/

6º Poids à l'inscription /____/____/____/

7º Poids actuel (poids ce jour) /____/____/_____/

8º Pourcentage du P/A /_____/_____/_____/

II QUESTIONNAIRES / A LA MERE

2.A/GENERALITES SUR LE MENAGE

2.A.1 Quel âge avez-vous ? /_____/_____/

2.A.2 Combien d'enfants avez-vous eu au total ? (vivants + décédés) /____/____/

2.A.3 Combien sont en vie actuellement ? /_____/_____/

2.A.4 Est ce qu'il y a de l'électricité chez-vous ? Oui ☐ Non ☐

2.A.5 Est ce qu'il y a de l'eau courante (robinet) ? Oui ☐ Non ☐

2.A.6 Est ce qu'il y a une (ou des) latrines (ou W.C) ? Oui ☐ Non ☐

2.A.7 Que faites-vous des eaux usées de la famille ?

2.A.7.1 verser dans la cours ☐
2.A.7.2 verser dans la rue ☐
2.A.7.3 verser dans une fosse ☐

2.A.8 Que faites-vous des déchets de la famille

2.A.9.1 Jeter dans la cours ☐
2.A.9.2 Jeter dans la rue ☐
2.A.9.3 verser dans une fosse ☐
2.A.9.4 brûler les ordures ☐

2.A.9 Travaillez-vous en dehors de la maison Oui ☐ Non ☐

2.A.9.1 Si Oui A temps plein (tous les jours : du matin au soir) ☐
A temps partiel (quelques jours/semaine ou soit le matin seulement, soit l'après midi, soit la nuit) ☐

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2.A.10 Que faites-vous comme travail ?

- Ménagère hors de la maison ☐
- Commerçante ☐
- Teinturière/Couturière ☐
- Ouvrière ☐
- Fonctionnaire ☐
- Autres ☐

2.A.11 Quel est votre niveau d'instruction ? (encercler la réponse)

a) Analphabète
b) Primaire
c) Secondaire
d) Universitaire

2.A.12 Est ce que le père de votre enfant est très souvent présent dans la famille ? Oui ■ Non ☐

2.A.12.1 Qu'est ce qu'il fait comme travail ? (encercler la réponse)

a) Commerçant
b) Fonctionnaire
c) Ouvrier
d) Affaires
e) Courtier
f) Autres
g Sans travail

2.A.13 Combien d'argent dépensez vous en moyenne par jour pour préparer les repas de la famille ?

(Essayer d'énumérer avec l'enquêtée les différents produits utilisés pour faire les repas, leur quantité et les prix approximatifs de chacun, le total vous permet d'estimer le montant de la dépense journalière par la nourriture)

Riz : /_____/ Huile : /_____/ Tomate : /_____/

Sel : /_____/ Charbon : /_____/ Viande/Poisson : /_____/

Pain :/_____/ Thé : /_____/ Sucre : /_____/

Café/Kinquéliba : /_____/ Autres : /_____/

Total : /_____/

2.A.14 Combien de personne vivent et mangent chez vous ? /___/___/

50

B OPERATION DES CENTRES (CATRES JAUNES, CAUSERIES ET VIVRES)

2.B.1 Pendant le dernier mois, que s'est-il passé avec le poids de votre enfant ? (vérifier sur la carte de l'enfant)

- A-t-il augmenté ☐
- A-t-il chuté (diminué) ☐
- Il n'a pas changé ☐
- Ne sait pas ☐

2.B.2 Que signifie la partie jaune de la carte ? _____

2.B.3 Que signifie la partie verte de la carte ? _____

2.B.4 Pensez-vous que votre enfant a un bon poids ? _____

2.B.5 Pouvez-vous citer les thèmes de causeries aux quelles vous avez participé dans le centre

(Ne citer aucun theme, cocher la case correspondante du theme cité par la femme).

- L'hygiène du bébé ☐
- Manger 5 fois /jour ☐
- La fièvre ☐
- Vitamine A ☐
- L'Allaitement maternel ☐
- Hygiène (microbes) ☐
- La diarrhée (les causes) ☐
- Comment préparer la NSR ☐
- La femme enceinte ☐
- La carte jaune ☐
- Les vaccinations ☐
- Le P.F. ☐
- L'introduction des aliments ☐
- Soigner avec de l'eau ☐
- La déshydratation /SRO (poupée) ☐
- Comment choisir un bon repas ☐
- Le sida ☐
- La sécurité ☐
- Les infections respiratoires aigues ☐

2.B.6 Quelle a été la causerie du mois passée ? _____

_____

_____

2.B.7 Quelle est la quantité de vivres que vous devrez recevoir chaque mois ?

Sorgho :_____ Kgs N.S.E : _____

Huile : _____ litres Autres : _____

2.B.8 Combien de personnes mangent d'habitude la nourriture que vous recevez ?

Enfants < 5 ans : /____/____/ Enfants de 5 à 14 ans : /____/___/

Adultes (> 14 ans) : /____/____/

2.B.9 Ces vivres, se terminent d'habitude au bout de combien de jours

pour le sorgho = ____ jours

pour l'huile = ____ jours

pour le N S E = ____ jours

pour les autres= ____ jours

C ALLAITEMENT MATERNEL ET NUTRITION

2.C.1. Combien d'enfants de moins de 5 ans avez-vous? /___/___/

2.C.2 Votre dernier enfant (s'il a moins de 24 mois est-il encore nourri au sein ?) Oui ☐ Non ☐

51

2.C.3 A sa naissance, à quel moment l'avez vous mis au sein pour la première fois?

a) Immédiatement (<1 heure)
b) Même jour = 1 à 24 Heures
c) Au 2ème jour
d) Au 3ème jour
e) Plus de 3 jours
f) Jamais

2.C.4 Si non Pourquoi ?
1) Il n'y a pas de lait
2) L'enfant était malade
3) Mère malade
4) Mère enceinte
5) L'enfant est grand pour allaiter

2.C.5 A quel âge avez vous arrêté de lui donner le sein définitivement ? /___/___/ (âge en mois)
(Si l'enfant est encore au sein et qu'il y a un autre enfant de moins de 5 ans, posez la question)

2.C.6 Pour votre autre enfant (frère ou soeur de ce dernier), à quel âge avez-vous arrêté de lui donner le sein ? /___/____/ (âge en mois)

2.C.7 Avez-vous l'habitude de nourrir votre enfant au biberon ? Oui ☐ Non ☐

2.C.8 A quel âge avez-vous l'habitude de commencer à donner à vos enfants des aliments autres que votre lait ? /___/___/ (âge en mois)

2.C.9 Quel a été d'habitude, le premier aliment solide que vous donnez à vos enfants ? _____

2.C.10 Quels sont les autres aliments que vos enfants mangent en même temps que vous allaitez ? (Encercler toutes les réponses citées)

1) Bouillie Cérélac
2) Couscous + lait
3) Purée de légumes
4) Pain sucré
5) Pain
6) Plat familial (riz)
7) Bouillie (riz + farine)
8) Oeufs
9) Lait caillé
10) Thé

2.C.11 Combien de repas préparez-vous par jour, pour toute la famille ? /___/

2.C.12 Combien de fois donnez-vous à vos enfants de moins de 5 ans à manger ? /___/

2.C.13 Connaissez-vous les 3 groupes d'aliments qu'une personne doit manger tous les jours, surtout un enfant ?
(Les couleurs ou les noms sont acceptables Exemple : "rouge" au groupe de construction).

1º : _____
2º : _____
3º : _____
4º : Ne sait pas

52

2.C.14 Quels sont les aliments riches en Vit A ? (Citer au moins 4)
1) _____ 2) _____ 3) _____

4) _____ 5) Ne sait pas

2.C.15 Quels sont les aliments qui contribuent à la construction de l'organisme : (citer 5)

1) _____ 2) _____ 3) _____

4) _____ 5) _____ 6) Ne sait pas

2.C.16 Quels sont les aliments qui contribuent à la protection de l'organisme : (citer 5)

1) _____ 2) _____ 3) _____

4) _____ 5) _____ 6) Ne sait pas

2.C.17 Quels sont les aliments qui fournissent de l'énergie au corps: (citer 5)

1) _____ 2) _____ 3) _____

4) _____ 5) _____ 6) Ne sait pas

2.C.18 Pour chacun des aliments suivants, indiquez si vous le mangez et à quel rythme ? (Mettre une croix à la case correspondante)

Produits	Chaque jour	De temps en temps	Rarement	Jamais
Poisson				
Viande				
Lait				
Légumes (saison chaude)				
Légumes (saison froide)				
Fruits (saison chaude)				
Fruits (saison froide)				
Oeufs				
Pain				

2.C.19. Une femme enceinte, doit elle manger :

a) Comme d'habitude avant sa grossesse ☐

b) Plus que d'habitude ☐

c) Moins que d'habitude ☐

d) Ne sait pas ☐

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D VACCINATIONS / SOINS DE L'ENFANT

2.D.1 Que faites-vous au cas où un de vos enfants est malade ?
(Encercler la 1ère réponse donnée par la mère)

1) Ne fait rien
2) Aller à la PMI ou Centre de Santé
3) Donner des médicaments
4) Aller voir le Médecin Traditionnel/Guérisseur
5) Autres
6) Ne sait pas

2.D.2 Que pouvez-vous faire pour protéger vos enfants contre les maladies ?

1) Ne fait rien
2) Allaiter les enfants
3) Pratiquer la bonne hygiène
4) Vacciner les enfants
5) Assurer une bonne alimentation
6) Laver les enfants à l'eau et au savon
7) Autres
8) Ne sait pas

2.D.3 Contre quelles maladies doit on obligatoirement vacciner les enfants ?

1) Tuberculose
2) Diphtérie
3) Tétanos
4) Coqueluche
5) Poliomyélite
6) Rougeole
7) Autres
8) Ne sait pas

2.D.4 Combien de fois un enfant doit-il être vacciné au cours de sa première année de vie pour se protéger contre les maladies ?

1) fois
2) fois
3) fois
4) fois
5) fois
6) Plus de 5 fois

E LA DIARRHEE ET SRO

2.E.1 Qu'appelle-t-on diarrhée chez un enfant ? (Encercler la 1ère reponse)

1) L'enfant fait plusieurs selles/jour
2) L'enfant fait plus de 3 selles liquide/jour
3) L'enfant fait une selle liquide/jour
4) Ne sait pas

2.E.2 Combien de vos enfants ont eu la diarrhée au cours des 15 derniers jours ? /____/

2.E.3 Quelle est la chose la plus importante à faire lorsque un de vos enfants a la diarrhée ? (Encercler la première réponse seulement)

1) Ne fait rien
2) Aller à la PMI ou Centre de Santé
3) Donner à l'enfant beaucoup à boire
4) Donner le Gossi Maro
5) Donner la solution (sel + sucre + eau)
6) Aller chez le marabout
7) Ne sait pas

2.E.4 Expliquer comment préparer la solution SSE (Quelle sont les quantités)

1) Eau : _____ (en litre)
2) Sucre : _____
3) Sel : _____ (en pincés)

2.E.5 Avez-vous préparé et/ou utilisé cette solution pendant les 15 derniers jours ? Oui ☐ Non ☐

2.E.6 Si oui combien de fois? /____/____/

EVALUATION DU PROGRAMME DE LA COMMUNAUTE DOULOS

Test de Connaissance des Volontaires locaux:

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NOM ET PRENOM:_____ Centre:_____

1) Pour les aliments qui suivent, écrivez une ou deux choses pour les enrichir?

a) La bouillie enrichie avec_____

b) Le pain enrichi avec_____

c) Le yaourt enrichi avec_____

d) Le zreig enrichi avec_____

e) Le riz, les maccaronis ou le couscous enrichis avec_____

_____

2.a) Quelle est la vaccination nécessaire à la femme en âge de procréer?

_____

b. Combien des doses sont nécessaires (pour protéger la femme et son enfant)?

3) Quels sont les méthodes de dispotion des ordures?

1)

2)

3)

4) Est-il possible d'inscrire les enfants suivants dans le programme CRM/Doulos? (Ecrivez "Oui" s'il rempli les critères, "Non" s'il ne rempli pas les critères.

a) enfant a 2 mois; 65% _____

b) enfant a 35 mois; 70% _____

c) enfant a 12 mois; 75% la mère a 7 enfants _____

d) enfant a 20 mois; 75% le père décédée _____

e) enfant a 29 mois; 80% mère décédée _____

f) enfant a 6 mois; 65% avec une dose seulement de DTC _____

5) Quels sont les raisons pour lesquelles l'allaitement exclusif est fortement recommandée pendant les premiers 4 mois de vie de l'enfant?

a.

b.

c.

d.

e.

6) Une femme allaitante doit boire_____litres de liquide chaque jour.

7) Pourquoi doit-on couper régulièrement les ongles de l'enfant?

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_____

_____

_____

8) Quels sont les problèmes s'il y a des erreurs dans le calcul du pourcentage du Poids/Age?

1. (pour la volontaire):

2. (pour la mère):

9) Utiliser la nouvelle fiche maîtresse et répondez aux questions suivantes:

a. Si un enfant de 4 mois et pèse 4Kg 400g ne gagne pas des poids mais il se maintient à 4Kg 400g à l'âge de 5 mois; est -ce qu'il maintient le même pourcentage de son Poids/Age?

Oui ☐ Non ☐

b. Si un enfant de 20 mois et pèse 9Kg 400g ne gagne pas des poids mais il maintient 9Kg 400g à l'age de 21 mois: est-ce qu'il maintient le même pourcentage de son Poids/Age?

Oui ☐ Non ☐

10) Calculez l'âge et le pourcentage (P/A) pour chacun des enfants suivants:

D.N	Date(Présence)	L'Age	Poids	%
15.12.89	Mars 1990		06,0	
5.4.93	Août 1994		09,8	
30.1.93	Octobre 1993		08,4	
12.6.90	Avril 1994		09,5	
1.7.89	Juin 1994		12,0	
20.1.91	Mai 1991		04,0	
6.12.94	Juillet 1995		07,7	
1.12.92	Novembre 1996		13,1	

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11) Nommez 5 aliments très riches en vitamine A?

a)
b)
c)
d)
e)

12) Quelles sont les 3 modes de transmission du SIDA?

a)
b)
c)

13) Quels sont les 3 types de croissance des enfants ?

a)
b)
c)

14) L'enfant ne prend pas de poids pendant 2 mois successifs: il n'a pas de signes de maladie apparente: Donnez 3 causes possibles de ce retard de croissance?

a.
b.
c.

15) Donnez la cause du retard de croissance chez un enfant nourri au plat de famille dès le 4ème ou 5ème mois?

16) Placez les aliments suivants parmi les 3 groupes:
Groupe 1: Construction/ (Mettez (1) après le nom d'aliment)
Groupe 2: Energie/ (Mettez (2) après le nom d'aliment)
Groupe 3: Protection/ (Mettez (3) après le nom d'aliment)

Lait	Tomate	Sorgho	Gombo
Pomme de terre	Poisson	Macaroni	Citron
Oeuf	Haricots	Riz	Manioc
Pain de singe	Mais	Viande	Patate
Beurre	Dattes	Mangue	Mil
Arachides	Orange	Pain	Chou

17) Donnez 5 façons d'utiliser l'eau pour prévenir ou traiter les maladies.

a)
b)
c)
d)
e)

18) Qu'est-ce l'Allaitement Maternel Exclusif?

19) a) Qu'est-ce le Colostrum?

b) Quelle est sa durée et ses avantages.

20) Donnez 3 exemples des croyances <u>"FAUX"</u> qui sont les obstacles à l'allaitement maternel exclusive?

a.
b.
c.

21) Citez 5 jeux dangereux pour un enfant?

a.
b.
c.
d.
e.

22) a. Quels sont les aliments qui contiennent de la Vitamine C? (Citez en 3)

a.
b.
c.

b. Quel est le rôle de cette vitamine?

23) Citez 3 facteurs favorisant la malnutrition?

a.
b.
c.

24) Quels sont les signes d'une mauvaise croissance chez un enfant?

25) Quelles sont les maladies que l'on peut prévenir par la vaccination en Mauritanie?

Critères Pour les Inscriptions aux Centres CRM/Doulos en 1995

I. Des <u>enfants entre 4-30 mois</u> seront inscrits dans **tous les cas suivants**:

1) Des enfants qui ont **65% ou moins** de leurs poids pour âge normale; OU

2) Des enfants qui ont **75% ou moins de leurs poids pour âge** <u>ET AUSSI</u>:
   A. La mère est décédée **OU**
   B. L'enfant est inscrit dans les **CRENs,** ou il est sorti du CREN depuis **six mois.**

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II. Des enfants <u>entre 30-40 mois</u> seront inscrits si ils ont **65% ou moins de leurs poids pour âge.**

III. Pour <u>TOUS LES ENFANTS</u>, les mères doivent se présenter avec tous les papiers officiels nécessaires:

1) Les **actes de naissances;** ET

2) Leurs **carnets de vaccination** (toutes les **vaccinations doivent être à jour!!**); ET

3) Les autres papiers, comme nécessaires, **pour établir que la femme ou son enfant remplit au moins un des critères.** Par exemple: les certificats de décès, les papiers du CREN, etc.

<u>NOUVELLE CRITERE POUR 1995:</u>

4) 2 photos récentes de la mère